Motion To Dismiss Under § 101

Entropic Communications, LLC v. DISH Network Corporation, et al.,
Case No. 2:23-cv-01043-JWH-KES (Central District of California)

Hon. John W. Holcomb

August 9, 2023

’566 Patent

’566 Patent: Comparison of Independent Claims

Claim 1	Claim 11	Claim 19
1. A communication circuit comprising:	11. A communication circuit comprising:	19. A communication circuit comprising:
a transceiver operable to communicate in a coaxial cable network (CCN);		
a controller that is operable to, at least:	a controller that is operable to, at least:	a controller that is operable to, at least:
transmit first information on the CCN, the first information comprising information indicating when admission messages for requesting admission to the CCN may be transmitted on the CCN;	transmit first information on a Coaxial Cable Network (CCN), the first information comprising information indicating when admission messages may be transmitted on the CCN;	transmit first information on a Coaxial Cable Network (CCN) in a general beacon packet for the CCN, the first information comprising information indicating when admission messages may be transmitted on the CCN for admission to the CCN;
receive an admission request message from a new node for admission to the CCN;	receive an admission message from a new node;	receive an admission message from a new node;

’566 Patent: Comparison of Independent Claims

Claim 1	Claim 11	Claim 19
if the received admission request message is correctly received and the new node is authorized to join the CCN, then perform an admission procedure with the new node;	if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node by, at least in part, operating to:	if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node; and
probe a communication link of the CCN connecting the communication circuit to the new node; and	probe a communication link of the CCN connecting the communication circuit to the new node; and	
adapt transmission parameters for the communication link based, at least in part, on the probe.	adapt transmission parameters for the communication link based, at least in part, on the probe.	
		if the received admission message comprises errors, then transmit second information on the CNN, the second information comprising information indicating when a next admission message may be transmitted on the CNN.

Entropic's Claim Constructions

Term	Proposed Construction
If the received admission request message is correctly received and the new node is authorized to join the CCN, **perform an admission procedure** with the new node	Establishing a logical communication link between the controller node and the new node over existing CCN physical connections.
probe a communication link of the CCN connecting the communication circuit to the new node	Evaluating characteristics of the signal pathway from controller node to the newly admitted node, using one or more probes.
adapt transmission parameters for the communications link based, at least in part, on the probe.	Selecting transmission parameters for the signal pathway from controller node to the newly admitted node, based in part on the evaluation of the prior probing step.

Entropic's Claim Constructions

11. A communication circuit comprising:

a controller that is operable to, at least:

transmit first information on a Coaxial Cable Network (CCN), the first information comprising information indicating when admission messages may be transmitted on the CCN;

receive an admission message from a new node;

if the received admission message is correctly received and the new node is authorized to join the CNN, then [[establishing a logical communication link between the controller node and the new node over existing CCN physical connections]] with the new node by, at least in part, operating to:

[[evaluating characteristics of the signal pathway from controller node to the newly admitted node, using one or more probes]] of the CCN connecting the communication circuit to the new node; and

[[Selecting transmission parameters for the signal pathway from controller node to the newly admitted node, based in part on the evaluation of the prior probing step]] for the communication link based, at least in part, on the probe.

The Purpose of Claim Construction in a § 101 Analysis

"In aid of determining whether a particular motion requires claim construction before disposition of the motion, a district court is free to require the party asking for construction to provide an actual proposed construction, to demonstrate that its construction is not frivolous, and to articulate how adoption of the construction would materially impact the analysis at step one (and/or at step two)."

***Sanderling Mgmt. Ltd. v. Snap Inc.*, 65 F.4th 698, 704(Fed. Cir. 2023)**

Alice Step One: Focus on the Claims

"The analysis at step one 'must focus on' the claim language. *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019) ("Even a specification full of technical details about a physical invention may nonetheless conclude with claims that claim nothing more than the broad law or abstract idea underlying the claims."). Here, the claims themselves do not disclose performing any 'special data conversion' or otherwise describe how the alleged goal of 'conserving bandwidth while preserving data' is achieved. Nor, as the district found, do the claims (or the specification) explain 'what th[e] [claimed] parameters are or how they should be manipulated."

***Hawk Tech. Sys., LLC. v. Castle Retail, LLC*, 60 F.4th 1349, 1356 (Fed. Cir. 2023) (modifications in original)**

Alice Step One: Technological Environment Does Not Render Claims Non-Abstract

"[T]he prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment."

***Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 222 (2014) (quoting *Bilski v. Kappos*, 561 U.S. 593, 610-11 (2010))**

"That restriction, however, does not alter the result. All that limitation does is to confine the abstract idea to a particular technological environment—in this case, cellular telephones. The Supreme Court and this Court have repeatedly made clear that merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract. "

***Affinity Labs of Texas, LLC. v. DIRECTV, LLC*, 838 F.3d 1253, 1258-59 (Fed. Cir. 2016)**

Alice Step One: Generalized Steps & Conventional Computer Activity Not Eligible

"Claims directed to generalized steps to be performed on a computer using conventional computer activity are not patent eligible."

***Two-Way Media Ltd. v. Comcast Cable Commn's, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) *citing Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348-49 (Fed. Cir. 2015).**

Alice Step One: the Specification Must Yield to the Claims

"But while the specification may help illuminate the true focus of a claim, when analyzing patent eligibility, reliance on the specification must always yield to the claim language in identifying that focus."

"Ultimately, '[t]he § 101 inquiry must focus on the language of the Asserted Claims themselves,' and the specification cannot be used to import details from the specification if those details are not claimed."

***ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 766, 769 (Fed. Cir. 2019) quoting *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016)**

Alice Step One: Claim 11

11. A communication circuit comprising:
a controller that is operable to, at least:
transmit first information on a Coaxial Cable Network (CCN), the first information comprising information indicating when admission messages may be transmitted on the CCN;
receive an admission message from a new node;
if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node by, at least in part, operating to:
probe a communication link of the CCN connecting the communication circuit to the new node; and
adapt transmission parameters for the communication link based, at least in part, on the probe.

'566 patent, claim 11

Alice Step One: Specification Cites Not in Claims

X	**establish and maintain a new LAN/peer-to-peer network on top of pre-existing CCN** (Supp. Br. at 1 and 8, citing 4:11-19)
X	**peer-to-peer network on top of existing physical linkages of CCN, including a multitude of cables, splitters, and other elements** (Supp. Br. at 1 and 8, citing 1:41-46 & Figs. 1 & 2)
X	**controller that chooses separately which nodes to admit so that links can be separately adapted for differing qualities of the physical components to support higher frequency ranges** (Supp. Br. at 9-10, citing 1:53-65)
X	**optimizing communications by adapting transmission parameters between multiple peer nodes** (Supp. Br. at 4-5, 6 & 9-10, citing 1:53-65, 3:21-24 & 4:22-42)

11. A communication circuit comprising:
a controller that is operable to, at least:
transmit first information on a Coaxial Cable Network (CCN), the first information comprising information indicating when admission messages may be transmitted on the CCN;
receive an admission message from a new node;
if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node by, at least in part, operating to:
probe a communication link of the CCN connecting the communication circuit to the new node; and
adapt transmission parameters for the communication link based, at least in part, on the probe.

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Alice Step One: Specification Cites Not in Claim Constructions

X	**establish and maintain a new LAN/peer-to-peer network on top of pre-existing CCN** (Supp. Br. at 1 and 8, citing 4:11-19)
X	**peer-to-peer network on top of existing physical linkages of CCN, including a multitude of cables, splitters, and other elements** (Supp. Br. at 1 and 8, citing 1:41-46 & Figs. 1 & 2)
X	**controller that chooses separately which nodes to admit so that links can be separately adapted for differing qualities of the physical components to support higher frequency ranges** (Supp. Br. at 9-10, citing 1:53-65)
X	**optimizing communications by adapting transmission parameters between multiple peer nodes** (Supp. Br. at 4-5, 6 & 9-10, citing 1:53-65, 3:21-24 & 4:22-42)

Term	Proposed Construction
perform an admission procedure	Establishing a logical communication link between the controller node and the new node over existing CCN physical connections.
probe a communication link	Evaluating characteristics of the signal pathway from controller node to the newly admitted node, using one or more probes.
adapt transmission parameters	Selecting transmission parameters for the signal pathway from controller node to the newly admitted node, based in part on the evaluation of the prior probing step.

Alice Step One: Adding Abstract Ideas Does Not Make Claim Non-Abstract

"Demand response is itself an abstract concept—a familiar business choice to alter terms of dealing to help match supply and demand. . . . As we have said before, '[a]dding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract." *RecogniCorp., LLC v. Nintendo Co.*, 853 F.3d 1322, 1327 (Fed. Cir. 2017), *cert. denied*, 138 S. Ct. 672, 199 L. Ed. 2d 535 (2018)."

***ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 771 (Fed. Cir. 2019)**

Alice Step One: Entropic's Claim Constructions Do Not Make Claims Eligible

Establishing a logical communication link between the controller node and the new node over existing CCN physical connections

Still Abstract

Generic

"Here, the claims themselves do not disclose . . . how the alleged goal . . . is achieved. Nor, as the district court found, do the claims (or the specification) explain what the claimed parameters are or how they should be manipulated."

Hawk Tech. Sys., LLC. v. Castle Retail, LLC, 60 F.4th 1349, 1357 (Fed. Cir. 2023)

Alice Step One: Entropic's Claim Constructions Do Not Make Claims Eligible

probe a communication link of the CCN connecting the communication circuit to the new node	Evaluating characteristics of the signal pathway from controller node to the newly admitted node, using one or more probes.
adapt transmission parameters for the communications link based, at least in part, on the probe.	Selecting transmission parameters for the signal pathway from controller node to the newly admitted node, based in part on the evaluation of the prior probing step.

Alice Step One: Entropic's Claim Constructions Do Not Make Claims Eligible

Evaluating characteristics of the signal pathway from controller node to the newly admitted node, using one or more probes.

Selecting transmission parameters for the signal pathway from controller node to the newly admitted node, based in part on the evaluation of the prior probing step.

"Here, the claims themselves do not disclose . . . how the alleged goal . . . is achieved. Nor, as the district court found, do the claims (or the specification) explain what the claimed parameters are or how they should be manipulated."

Hawk Tech. Sys., LLC. v. Castle Retail, LLC, 60 F.4th 1349, 1358 (Fed. Cir. 2023)

The Claims and Constructions Do Not Recite a Peer-to-Peer Network

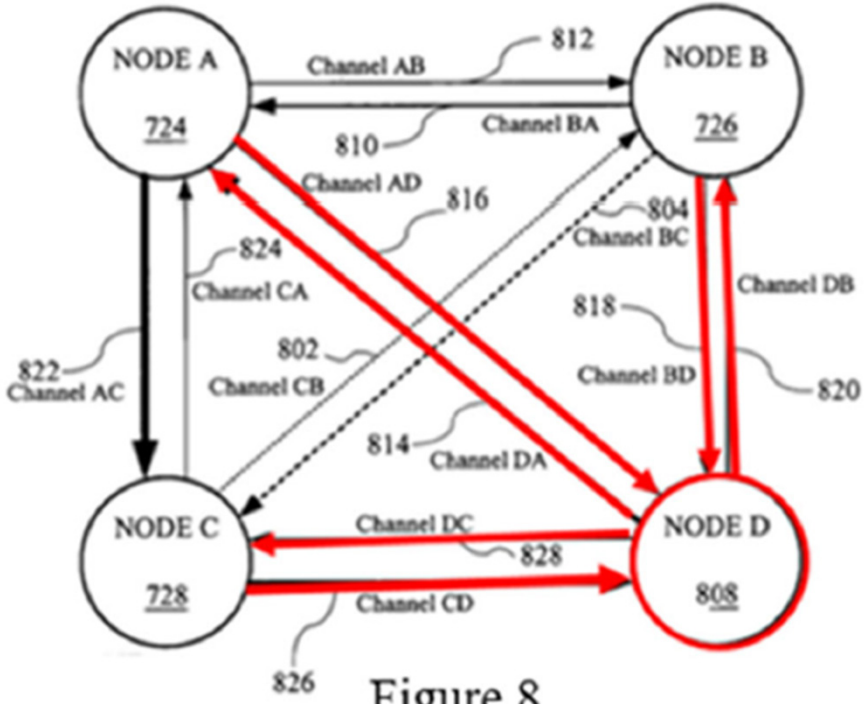


Figure 8

Entropic's Supp. Br. (Dkt. No. 71) at 4

Alice Step Two: No Inventive Concept

11. A communication circuit comprising:
a controller that is operable to, at least:
transmit first information on a Coaxial Cable Network (CCN), the first information comprising information indicating when admission messages may be transmitted on the CCN;
receive an admission message from a new node;
if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node by, at least in part, operating to:
probe a communication link of the CCN connecting the communication circuit to the new node; and
adapt transmission parameters for the communication link based, at least in part, on the probe.

'566 patent, claim 11

Alice Step Two: No Inventive Concept

1. A communication circuit comprising:
a transceiver operable to communicate in a coaxial cable network (CCN);
a controller that is operable to, at least:
transmit first information on the CCN, the first information comprising information indicating when admission messages for requesting admission to the CCN may be transmitted on the CCN;
receive an admission request message from a new node for admission to the CCN;
if the received admission request message is correctly received and the new node is authorized to join the CCN, then perform an admission procedure with the new node;
probe a communication link of the CCN connecting the communication circuit to the new node; and
adapt transmission parameters for the communication link based, at least in part, on the probe.

'566 patent, claim 1

Alice Step Two: No Inventive Concept

19. A communication circuit comprising:
a controller that is operable to, at least:
transmit first information on a Coaxial Cable Network (CCN) in a general beacon packet for the CCN, the first information comprising information indicating when admission messages may be transmitted on the CCN for admission to the CCN;
receive an admission message from a new node;
if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node; and
if the received admission message comprises errors, then transmit second information on the CNN, the second information comprising information indicating when a next admission message may be transmitted on the CNN.

'566 patent, claim 1

Alice Step Two: Entropic's Step Two Argument Does Not Track the Claims

"Here, as is evident from the specification, which must be taken as true at this point, the claimed controller chooses separately which nodes to admit to the CCN, and which to reject. The controller individually probes, and adapts parameters for, each link with each new node, thereby enabling improved/optimal use of the physical links (cables, splitters, etc.)."

Dkt. No. 71 (Supp. Br.) at 9-10

- **Controller chooses separately which nodes to admit and reject**
- **Individually probe and adapt parameters for each link**
- **Improved/optimal use of physical links (cables, splitters, etc.)**

Alice Step Two: Entropic's Step Two Argument Does Not Track the Constructions

perform an admission procedure	Establishing a logical communication link between the controller node and the new node over existing CCN physical connections.
probe a communication link	Evaluating characteristics of the signal pathway from controller node to the newly admitted node, using one or more probes.
adapt transmission parameters	Selecting transmission parameters for the signal pathway from controller node to the newly admitted node, based in part on the evaluation of the prior probing step.

X • **Controller chooses separately which nodes to admit and reject**

X • **Individually probe and adapt parameters for each link**

X • **Improved/optimal use of physical links (cables, splitters, etc.)**

Alice Step Two: Entropic's Step Two Argument Does Not Track the Claims

11. A communication circuit comprising:
a controller that is operable to, at least:
transmit first information on a Coaxial Cable Network (CCN), the first information comprising information indicating when admission messages may be transmitted on the CCN;
receive an admission message from a new node;
if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node by, at least in part, operating to:
probe a communication link of the CCN connecting the communication circuit to the new node; and
adapt transmission parameters for the communication link based, at least in part, on the probe.

'566 patent, claim 11

X
- **Controller chooses separately which nodes to admit and reject**

X
- **Individually probe and adapt parameters for each link**

X
- **Improved/optimal use of physical links (cables, splitters, etc.)**

Alice Step Two: Entropic's Constructions Are Abstract and Do Not Add an Inventive Step

Establishing a logical communication link between the controller node and the new node over existing CCN physical connections

Evaluating characteristics of the signal pathway from controller node to the newly admitted node, using one or more probes.

Selecting transmission parameters for the signal pathway from controller node to the newly admitted node, based in part on the evaluation of the prior probing step.

Alice Step Two: No Explanation of How

"Without an explanation of the 'mechanism' for 'how the result is accomplished,' this purported feature of the invention cannot supply an inventive concept.

Intell. Ventures I LLC v. Erie Indem. Co., 850 F.3d 1315, 1331-32 (Fed. Cir. 2017) (citing Internet Patents Corp. v. Active Network, Inc., 790 F.3d 1343, 1348 (Fed. Cir. 2015) (internal quotations omitted)

Alice Step Two: Even Novel Abstract Steps Cannot Not Add an Inventive Step

"At *Alice* step two, it is irrelevant whether considering historical usage information while inputting data may have been non-routine or unconventional as a factual matter. As a matter of law, narrowing or reformulating an abstract idea does not add "significantly more" to it. *See Sap Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018)

***BSG Tech. LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1291 (Fed. Cir. 2018) (citation omitted)**

"That is, under the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility; instead, the application must provide something inventive, beyond mere 'well-understood, routine, conventional activity."

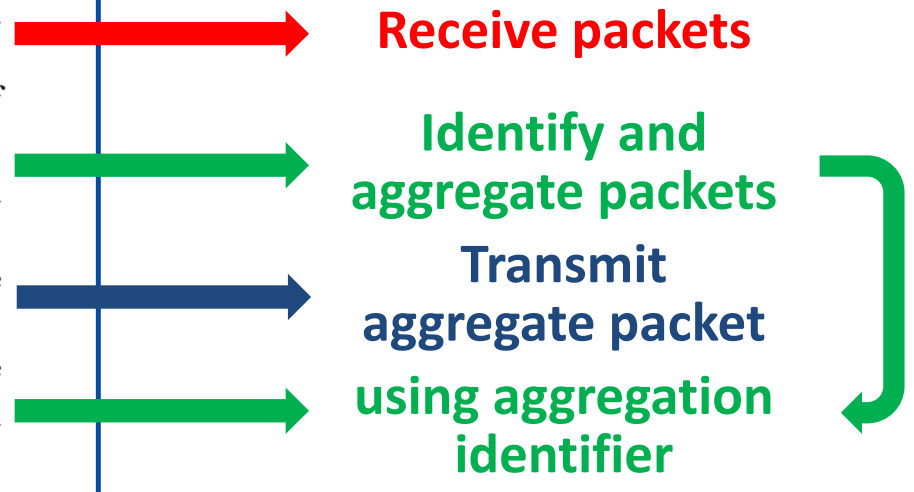
***Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016)**

’910 Patent

Alice Step One: Representative Claim 3 is an Abstract System Claim, Functionally Described

Claim 3 is directed to the abstract idea of receiving, aggregating, and transmitting data.

3. A system for transmitting digital data over a network comprising:
a transceiver adapted to receive a plurality of packet data units; and
a packet aggregation module for identifying at least two of the plurality of packet data units that have a same destination node and for forming an aggregate packet from the at least two of the plurality of packet data units;
wherein the transceiver is adapted to transmit the aggregate packet to at least one destination node; and
wherein the packet aggregation module identifies the same destination node by identifying a same aggregation identifier.



General Problem and General Solution

General Problem

In some networks, such as an MoCA network or an Ethernet-based network, digital data is transmitted in the form of a packet. However, overhead information is associated with each packet transmitted through the network. The overhead information, including identifiers, source and destination addresses, error control fields, etc., is added to the user data and reduces the availability of network bandwidth for user data.

'910 patent at 1:30-37.

General Solution

DETAILED DESCRIPTION

One embodiment is a network in which a transmitting node aggregates packets that are directed to a common destination node. The transmitted packet overhead of the network can then be reduced by eliminating interframe gaps, preamble information, and extra headers.

'910 patent at 1:66-2:3.

"Aggregating Network Packets for Transmission to a Destination Node"

Prior Art Packets

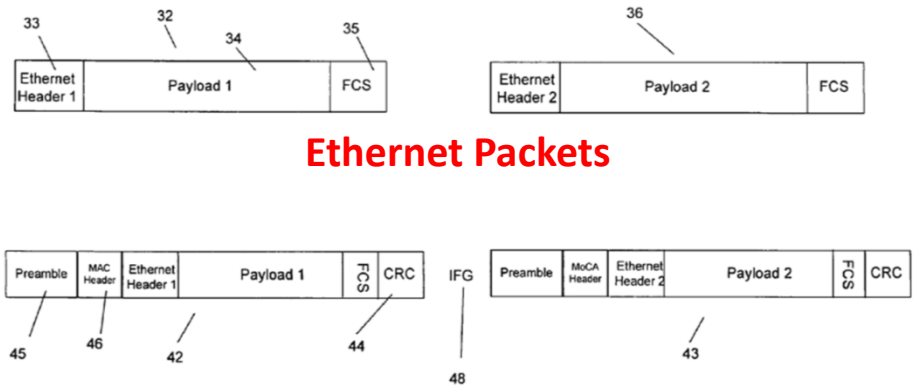


Fig. 3

FIG. **3** illustrates the structure of various packets that are received and/or transmitted by the network in accordance to one embodiment.

Exemplary Aggregated Packet

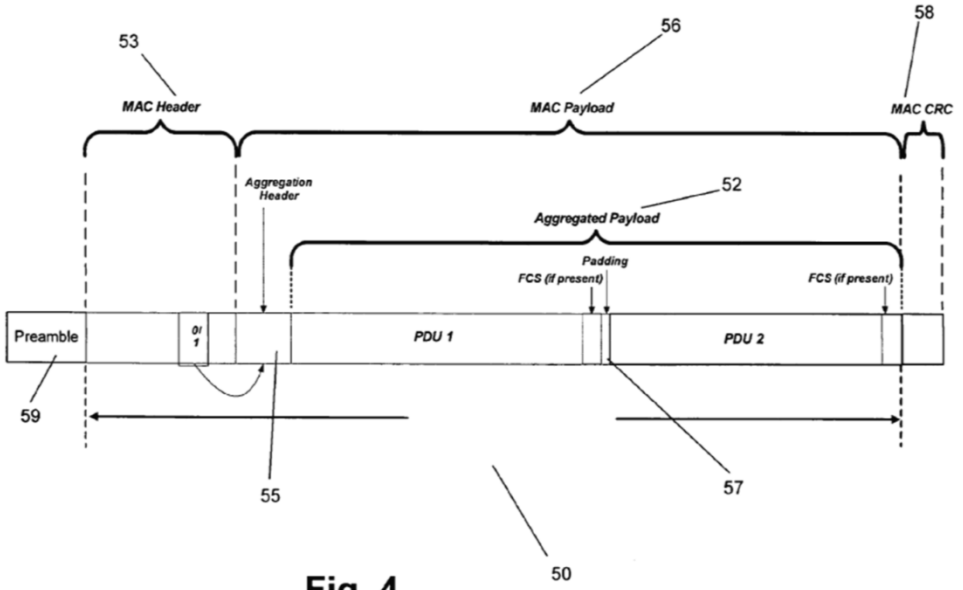


Fig. 4

FIG. **4** illustrates the structure of an aggregated frame in accordance with one embodiment.

Alice Step One: The Focus Is the Claims; Entropic Cannot Rely on the Specification

Hawk's arguments fail. **The analysis at step one "must focus on" the claim language.** *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019) ("Even a specification full of technical details about a physical invention may nonetheless conclude with claims that claim nothing more than the broad law or abstract idea underlying the claims."). **Here, the claims themselves do not disclose performing any "special data conversion" or otherwise describe how the alleged goal of "conserving bandwidth while preserving data" is achieved.**

***Hawk Tech. Sys., LLC. v. Castle Retail, LLC*, 60 F.4th 1349, 1357 (Fed. Cir. 2023)**

Claim 3 Is Akin to the Abstract Claim in *Two-Way Media*

Directed to the abstract idea of (1) sending information, (2) directing the sent information, (3) monitoring the receipt of the sent information, and (4) accumulating records about receipt of the sent information.

***Two-Way Media Ltd. v. Comcast Cable Communications, LLC.*, 874 F.3d 1329, 1335-37 (Fed. Cir. 2017).**

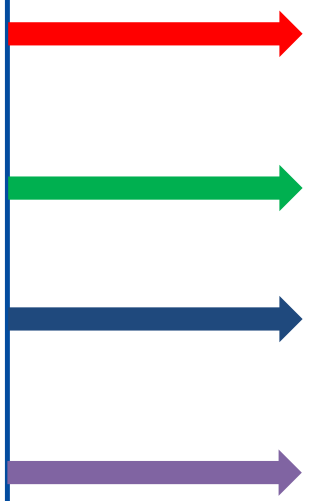
29. A method for forwarding real-time information to one or more users having access to a communications network comprising:

processing one or more streams of audio or visual information into one or more streams of packets for forwarding over the communications network, wherein at least one stream of packets comprises audio or video information,

forwarding the digital packets to the users in response to information selection signals received from the users,

verifying the operational status of the users' access to the communications network during delivery of the real-time information, and

updating a database with indications of: (i) which streams of packets were received by which users, (ii) the time when delivery of each stream to each user commenced, and (iii) the time when delivery of each stream to each user terminated.



Sending information

Directing the sent information

Monitoring the receipt of the sent information

Accumulating records about receipt of the sent information

The Claim in *ADASA* Is Inapposite

Claim 1 is "directed to a specific, hardware-based RFID serial number data structure designed to enable technological improvements to the commissioning process."

***ADASA Inc. v. Avery Dennison Corp.*, 55 F.4th 900, 908 (Fed. Cir. 2022).**

1. An RFID transponder comprising:

a substrate;

an antenna structure formed on the substrate; and

an RFID integrated circuit chip which is electrically coupled to the antenna structure;

wherein the RFID integrated circuit chip is encoded with a unique object number, the unique object number comprising an object class information space and a unique serial number space;

wherein the unique serial number space is encoded with one serial number instance from an allocated block of serial numbers, the allocated block being assigned a limited number of most significant bits;

wherein the unique serial number space comprises the limited number of most significant bits uniquely corresponding to the limited number of most significant bits of the allocated block and of remaining bits of lesser significance that together comprise the one serial number instance.

The Claim in *TecSec* Is Inapposite

Claim 1 "goes beyond managing access to objects using multiple levels of encryption, as required by 'multilevel . . . security'" and "expressly requires, as well, accessing an 'object-oriented key manager' and specified uses of a 'label' as well as encryption for the access management."

***TecSec, Inc. v. Adobe, Inc.*, 978 F.3d 1278, 1295 (Fed. Cir. 2020).**

1. A method for providing multi-level multimedia security in a data network, comprising the steps of:

A) accessing an object-oriented key manager;

B) selecting an object to encrypt;

C) selecting a label for the object;

D) selecting an encryption algorithm;

E) encrypting the object according to the encryption algorithm;

F) labelling the encrypted object;

G) reading the object label;

H) determining access authorization based on the object label; and

I) decrypting the object if access authorization is granted.

Claim 3 Recites Two Conventional Components Performing Generalized Steps

3. A system for transmitting digital data over a network comprising:

a transceiver adapted to receive a plurality of packet data units; and

a packet aggregation module for identifying at least two of the plurality of packet data units that have a same destination node and for forming an aggregate packet from the at least two of the plurality of packet data units;

wherein the transceiver is adapted to transmit the aggregate packet to at least one destination node; and

wherein the packet aggregation module identifies the same destination node by identifying a same aggregation identifier.

'910 patent, claim 3

"The inquiry often is whether the claims are directed to 'a specific means or method' for improving technology or whether they are simply directed to an abstract end-result. . . . While **'generalized steps to be performed on a computer using conventional computer activity' are abstract**, not all claims in all software patents are necessarily directed to an abstract idea."

***RecogniCorp, LLC v. Nintendo Co., Ltd.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017).**

The Transceiver Is a Conventional Device

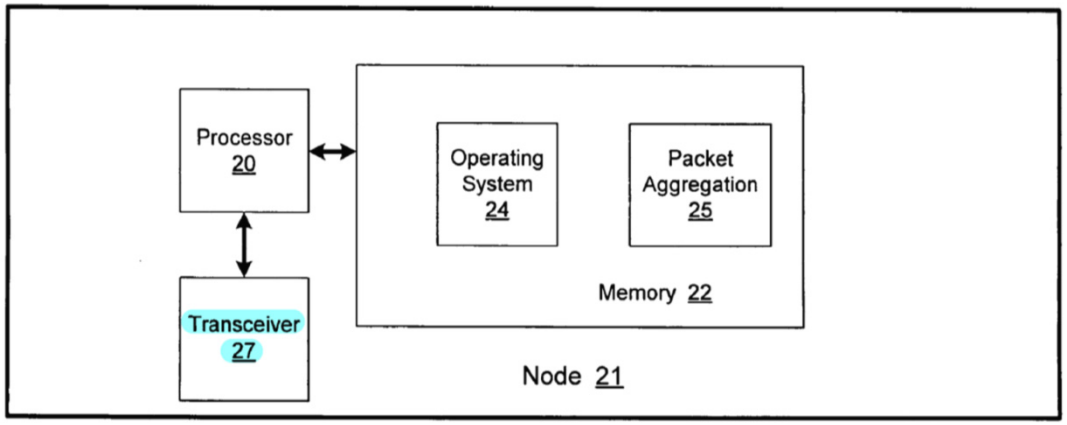


Fig. 2

"Transceiver 27 can be **any device that transmits and receives digital data**."

'910 patent at 3:14-15.

The Transceiver Performs Two Conventional Steps: Receive and Transmit Data

3. A system for transmitting digital data over a network comprising:

a transceiver adapted to receive a plurality of packet data units; and (1)

a packet aggregation module for identifying at least two of the plurality of packet data units that have a same destination node and for forming an aggregate packet from the at least two of the plurality of packet data units;

wherein the transceiver is adapted to transmit the aggregate packet to at least one destination node; and (2)

wherein the packet aggregation module identifies the same destination node by identifying a same aggregation identifier.

'910 patent, claim 3

The Packet Aggregation Module Is Conventional Hardware or Software or Combo

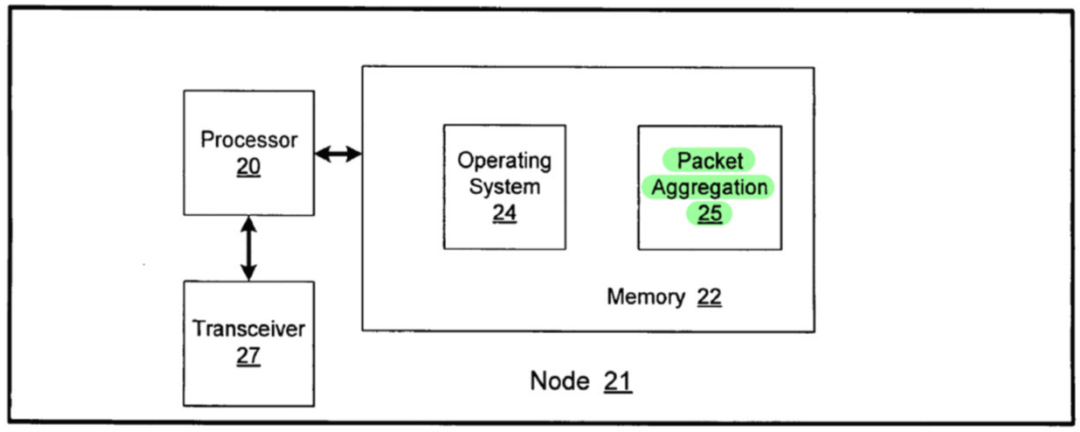


Fig. 2

"The modules include an operating system 24, and **a packet aggregation module 25**. the functionality of these modules, although shown as software in FIG. 2, **can be implemented by any combination of hardware or software** in other embodiments.

'910 patent at 3:31-35.

The Packet Aggregation Module Performs Two Generalized Steps: Identifying and Forming

3. A system for transmitting digital data over a network comprising:

a transceiver adapted to receive a plurality of packet data units; and

a packet aggregation module for identifying at least two of the plurality of packet data units that have a same destination node and for forming an aggregate packet from the at least two of the plurality of packet data units;

wherein the transceiver is adapted to transmit the aggregate packet to at least one destination node; and

wherein the packet aggregation module identifies the same destination node by identifying a same aggregation identifier.

1

2

'910 patent, claim 3

The Nodes Are Also Conventional

"**A network will typically have a single NC node and any number of client nodes**, and the NC node may transmit beacons and other control information to manage the network."

'910 patent at 1:26-29.

"**Node 21 can function as an NC node**, such as node 12 of FIG. 1, **or as a client node**, such as nodes 13-15 of FIG. 1. Node 21 includes a processor 20, a transceiver 27, and memory 22. Processor 20 may be **any type of general or specific purpose processor**. Transceiver 27 can be **any device that transmits and receives digital data**. Memory 22 stores information and instructions to be executed by processor 20. Memory 22 can be comprised of any combination of random access memory ('RAM'), read only memory ('ROM'), static storage such as a magnetic or optical disk, or **any other type of computer readable medium**."

'910 patent at 3:10-20.

Alice Step One: The Use of an "Aggregation Identifier" Does Not Alter the Result

"Trinity further argues the district court failed to adequately consider comparing a selected answer against other users 'based on the unique identification,' which Trinity asserts was a 'non-traditional design' that allowed for 'rapid comparison and aggregation of result values even with large numbers of polls and members.' We disagree. **The use of a unique identifier does not prevent a claim from being directed to an abstract idea**."

***Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1366 (Fed. Cir. 2023) (citing *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017) ("The fact that an identifier can be used to make a process more efficient, however, does not necessarily render an abstract idea less abstract.").**

Alice Step One: Claim 3 Invokes Long-standing Human Activity Using Computers as a Tool

"Claim 1 also describes the patented system as a 'post office'—albeit an electronic one. The district court held that 'the asserted claims of the '142 patent are directed to **human-practicable concepts**, which could be implemented in, for example, a brick-and-mortar post office.' We agree, and think the district court's analogy to a corporate mailroom is also useful."

***Intell. Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1317 (Fed. Cir. 2016).**

"In the context of software-based inventions, *Alice*/*Mayo* step one 'often turns on whether the claims focus on the specific asserted improvement in computer capabilities or, instead, on a process that qualifies as an abstract idea for which **computers are invoked merely as a tool**.'"

***Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1363 (Fed. Cir. 2023).**

Entropic Agrees that Claim 3 Is Akin to Mail Delivery

> information. *See id.* at 3:49-52. In this way, a PDU is like a physical letter, wherein the information on the envelope (address, return address, postage) is akin to the overhead data, and the contents of the letter corresponds to the payload.

Entropic Supp. Brief, Dkt. 71 at 11.

> only once. This is analogous to putting two letters destined for the same address in the same envelope.

Id.

> single aggregate packet for transmission. *Id.* at 3:42-47; 3:57-59. In this way, a single set of overhead data is transmitted for an aggregated packet, rather than having such information separately transmitted multiple times for each individual, unaggregated packet – multiple letters in a single envelope, rather than an envelope for each letter. *See id.* at 1:30-37; 1:66-col. 2:3. *See also id.*, Figs. 3, 4.

***Id.* at 12.**

Alice Step Two: Claim 3 Invokes Routine/Conventional Components

"Next, we address step two of the framework and conclude that the claims do not include an inventive concept sufficient to transform the claimed abstract idea into a patent eligible application. Because claim 11 is specified at a high level of generality, is specified in functional terms, and **merely invokes well-understood, routine, conventional components and activity to apply the abstract idea identified previously**, claim 11 fails at step two."

***Elec. Commun. Techs., LLC v. ShoppersChoice.com, LLC,* 958 F.3d 1178, 1183 (Fed. Cir. 2020).**

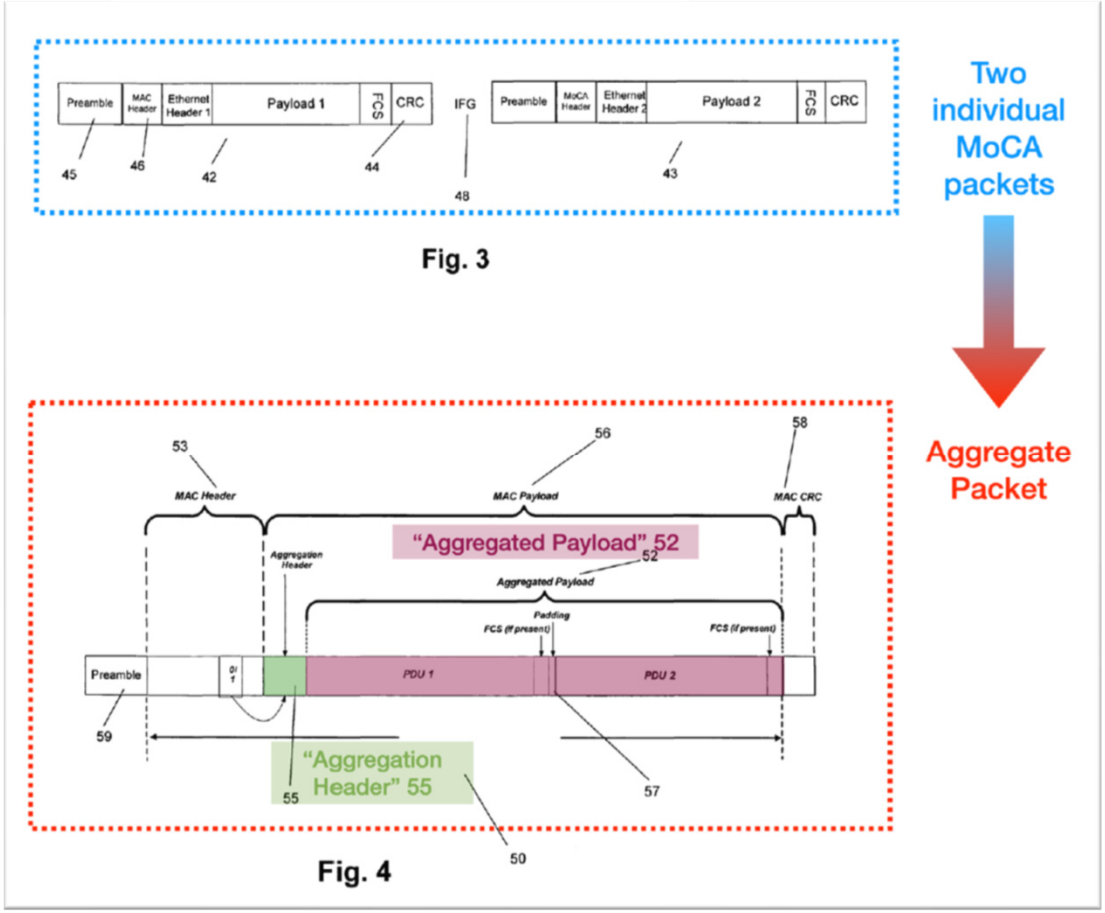
Alice Step Two: Entropic Relies on Unclaimed Features

> Further, the claims satisfy *Alice* step 2 because the specification explains how the claimed system improves upon a communication network, *i.e.*, the claimed system reduces the packet overhead information by, eliminating overhead information that otherwise would be required for each and every PDU sent separately (compare bottom Fig. 3 showing separate MoCA packets to the aggregate packet of Fig. 4). '910 Patent, col. 2, lines 1-3; col. 6, lines 25-27.

Entropic Supp. Brief, Dkt. 71 at 15.

Neither the claims nor Entropic's proposed constructions require eliminating overhead information or explain how to improve network bandwidth.

Alice Step Two: Entropic Relies on Unclaimed Features



Neither the claims nor Entropic's proposed constructions require aggregating MoCA packets

Neither the claims nor Entropic's proposed constructions require the packet structure of Figure 4

Opp. Brief, Dkt. 57 at 20.

Alice Step Two: Using Destination Information for Aggregation Purposes Is Not Sufficient

an infiniteness rejection). The use of this destination information for aggregation purposes was not well understood, routine, or conventional.

Entropic Supp. Brief, Dkt. 71 at 15.

"The abstract idea itself cannot supply the inventive concept, 'no matter how groundbreaking the advance.'"

***Trading Techs. Int'l, Inc. v. IBG, LLC*, 921 F.3d 1378, 1385 (Fed. Cir. 2019).**

"[T]he prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of the formula to a particular technological environment' or adding 'insignificant post-solution activity.'"

***Bilski v. Kappos*, 561 U.S. 593, 610-11 (2010).**

Using Destination Information for Aggregation Purposes Was Conventional

an infiniteness rejection). The use of this destination information for aggregation purposes was not well understood, routine, or conventional.

Entropic Supp. Brief, Dkt. 71 at 15.

In *Rajan,* "the destination addresses of packets 1-1 are extracted from respective headers and then are stored, for example, in a memory (not shown)." *Id.* at 2:56-58. These are not discarded—they remain essential, precisely because the final packet destinations may be different. Those destinations are sent along with the concatenated packet inside the payload so that, when the concatenated group is pulled apart at some downstream router, the destination of each constituent packet can be recovered and used to send the packets to their respective destinations. *Id.* at 3:16-

Id.

Entropic's "Packet Aggregation Module" Construction Merely Rephrases Claim 3

Limitation	Proposed Construction
a packet aggregation module for identifying at least two of the plurality of packed data units that have a same destination node	A module that forms aggregate packets from individual packet data units based upon those individual packet data units having the final destination, indicated by having the same aggregation identifier.

Entropic Supp. Brief, Dkt. 71 at 13.

Claim 3	Proposed Construction
a packet aggregation module for identifying at least two of the plurality of packet data units that have a same destination node and for forming an aggregate packet from the at least two of the plurality of packet data units; . . . wherein the packet aggregation module identifies the same destination node by identifying a same aggregation identifier.	a module that forms aggregate packets from individual packet data units based upon those individual packet data units having the final destination,[3] indicated by having the same aggregation identifier

DISH Supp. Brief, Dkt. 75 at 15.

Entropic's "Forming an Aggregate Packet" Construction Adds Two Requirements

Limitation	Proposed Construction
and **forming an aggregate packet** from the at least two of the plurality of packet data units;	Combining a plurality of packet data units having the same aggregation identifier identifying the same final destination node, wherein the aggregated packet comprises a single header, and an aggregated payload that is formed from the plurality of packet data units.

1

2

Entropic Supp. Brief, Dkt. 71 at 13.

"A Single Header" is Conventional Technology

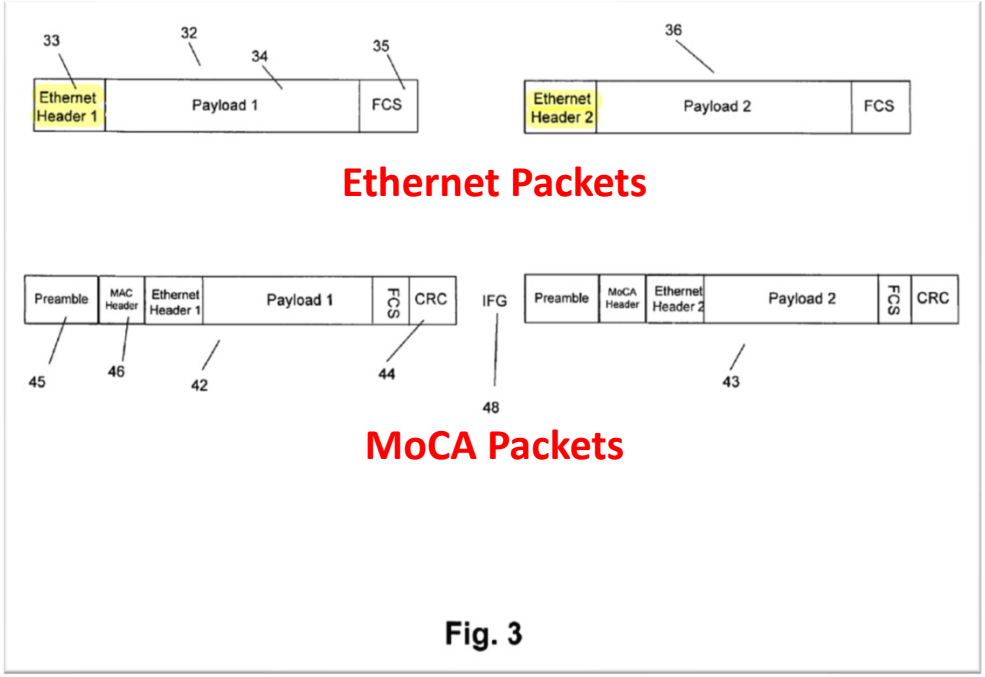


Fig. 3

"An Ethernet packet, such as Ethernet packets 32 and 36, typically includes at least **an Ethernet header 33**, a payload 34 and Frame Check Sequence ("FCS) bits 35 (also referred to as cyclic redundancy check ("CRC) bits)."

'910 patent at 3:49-52.

Claim Differentiation Problem: Entropic's Construction Is Not Plausible

"forming an aggregate packet"

Combining a plurality of packet data units having the same aggregation identifier identifying the same final destination node, wherein the aggregated packet comprises a single header, and an aggregated payload that is formed from the plurality of packet data units.

Header # 1

Header # 2

1. A method of transmitting digital data over a network comprising:
receiving a plurality of packet data units;
identifying at least two of the plurality of packet data units that have a same aggregation identifier;
forming an aggregate packet from the at least two of the plurality of packet data units; and
transmitting the aggregate packet to at least one destination node;
wherein the aggregate packet comprises an aggregation header that comprises a number of packet data units in the aggregate packet,
further comprising:
determining the presence of a checksum bit in a media access control header;
calculating a first checksum for the aggregation header;
comparing the first checksum to a second checksum that is received in the aggregation header of the aggregate packet;
receiving the aggregate packet, wherein the aggregate packet comprises the media access control header;
determining the presence of an original frame check sequence bit in the media access control header; and
passing the at least two of the plurality of packet data units to a device without modifying frame check sequences if the second checksum is found to be correct.

Def.'s Supp. Brief, Dkt. 75 at 16.

An Aggregated Payload "Formed from the Plurality of PDUs" Is Not Inventive Either

As detailed in the specification, a communication network transmits digital data in the form of packets. '910 Patent at 1:30-33. These packets, or packet data units ("PDUs"), have overhead information, which "includ[es] identifiers, source and *destination addresses*, [and] error control fields," allowing a PDU to reach its destination. *Id.* at 1:33-35 (emphasis added). PDUs also contain "payload" information. *See id.* at 3:49-52. In this way, a PDU is like a physical letter, wherein the information on the envelope (address, return address, postage) is akin to the overhead data, and the contents of the letter corresponds to the payload.

While overhead information allows a PDU to reach correct destinations, it "reduces the availability of network bandwidth for user data." *Id.* at 1:33-37. To solve the challenge, the invention of the '910 Patent aggregates individual PDUs transmitted to the same destination node such that overhead data need be transmitted only once. This is analogous to putting two letters destined for the same address in the same envelope.

Entropic Supp. Brief, Dkt. 71 at 11.

"The abstract idea itself cannot supply the inventive concept, 'no matter how groundbreaking the advance.'"

***Trading Techs. Int'l, Inc. v. IBG, LLC*, 921 F.3d 1378, 1385 (Fed. Cir. 2019).**